

REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of August 23, 2004. Claims 1-13, and 16-27 are pending in this application. Claims 14 and 15 have been canceled. Claims 11 and 12 have been amended. Claims 24-27 have been added. For the reasons discussed below, it is believed that Claims 1-12, 14, and 16-27 are in condition for allowance.

All of the Examiner's objections and rejections are traversed.

Reexamination and reconsideration are respectfully requested.

Summary of Interview

Applicants wish to thank Examiner Ali Bayat for his willingness to discuss, via the telephone on December 28, 2004, the applicability of the cited prior art, MacLeod et al. (US 5778992) and Shirasawa et al. (US 5696842) to the Applicants' claimed subject matter. Specifically, it was agreed that Examiner Bayat would reconsider his rejection of claims 2 and 14-15 after receiving this response. The limitations of originally presented Claims 14 and Claim 15 have been included in the currently amended Claims 11 and 12, respectively.

The Office Action

The Examiner has made the following rejections/objections in the Office Action mailed August 23, 2004.

Claims 1-4, 6-9 and 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macleod et al. (US 5778092) in view of Shirasawa et al. (US 5696842).

Claims 5 and 10 are objected to as being dependant upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Discussion

Regarding independent Claims 1, 6 and 16, and all claims that depend

therefrom (Claims 2-5, 7-13 and 17-23), the Examiner rejects these claims as being unpatenable over Macleod et al. (US 5778092) in view of Shirasawa et al. (US 5696842). Specifically, that MacLeod et al. provides for a method for segmenting an image, the image comprising pixels being represented by image data, where the method of MacLeod comprises the steps of: obtaining image data; inputting the image data into a first image segmentation module; and generating first image segmentation data by the first image segmentation module, the first image segmentation data representing at least one first characteristic of the image data. The rejection asserts further that Shirasawa et al. provides for inputting the image data into a second image segmentation module (at Fig. 1 element 4 and col. 4 lines 40-45), generating second image segmentation data by the second image segmentation module, (at Fig. 1 element 4 and col. 4 lines 40-45) the second image segmentation data representing at least one second characteristic of the image data, (at Fig. 1 element 4 and col. 4 lines 40-45) and integrating the first image segmentation data (at Fig. 1 element 103 and col. 4 lines 11-15) with the second image segmentation data (at Fig. 1 element 4 and col. 4 lines 40-45) to obtain modified image data. (at Fig. 1, elements 6-8) The prior art of Shirasawa et al., cited by the Examiner, as being combinable with MacLeod et al. because they are from the same field of endeavor and according to the Examiner it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Shirasawa et al. with the system and method of MacLeod et al. because Shirasawa et al. provides for an image processing system in which an image is read out from a color document, the image is correctly separated into a black-and-white region and a picture region, further bi-level image data is encoded via QM-coder, and the picture region is encoded via an ADCT encoding process in order to achieve a higher compression rate and improve the quality of a compressed image, Shirasawa et al. col. 2, lines 10-20.

This rejection is traversed because Shirasawa et al. does not teach integrating a first image segmentation data with a second image segmentation data to obtain a modified image data.

Specifically, the Examiner's citations of Shirasawa et al. do not teach integrating first image segmentation data with a second image segmentation data to obtain a modified image, as claimed. Shirasawa et al. teaches the separation of an

image into a black-and-white region and a picture region, then the two regions are encoded for compression using different algorithms. (Shirasawa et al., at col. 2, lines 10-20; at col. 4, lines 5-19). A selector is provided to route the image data to an appropriate encoding algorithm depending on whether the image data is from a black and white region or a picture region. This data is not integrated and Shirasawa et al. does not teach integrating the first image segmentation data with the second image segmentation data to obtain modified image data, as claimed. Therefore, the combination of Macleod et al. (US 5778092) and Shirasawa et al. (US 5696842) does not disclose/teach each and every limitation of the claimed subject matter. Accordingly, the Examiner is respectfully requested to withdraw his rejection for independent claims 1, 6 and 16, and all claims that depend therefrom, Claims 2-5, 7-13 and 17-23.

Regarding Claims 2 and 7, the Examiner argues that MacLeod et al. provides a method wherein the inputting of the image data to the first image segmentation module and second image segmentation module are accomplished concurrently at Fig.1, elements 103 and 104. This rejection is traversed because MacLeod et al. clearly illustrates at Fig. 1, element 103 and 104 being performed serially or in sequence. This is in contrast to the Applicant's claimed subject matter comprising the inputting of the image data to the first and second image segmentation modules occurring concurrently, e.g. simultaneously. Accordingly, the Examiner is respectfully requested to withdraw this rejection.

CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 1-13 and 16-27) are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

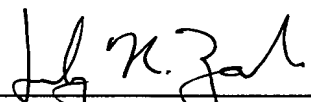
No additional fee is believed to be required for this Amendment. However, the undersigned attorney of record hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Deposit Account No. 24-0037.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Jeffrey N. Zahn, at Telephone Number (216) 861-5582.

Respectfully submitted,

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1/24/2005
Date



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